

Texas Water Development Board



W *Conditions* **A** **T** **T** **E** **R**

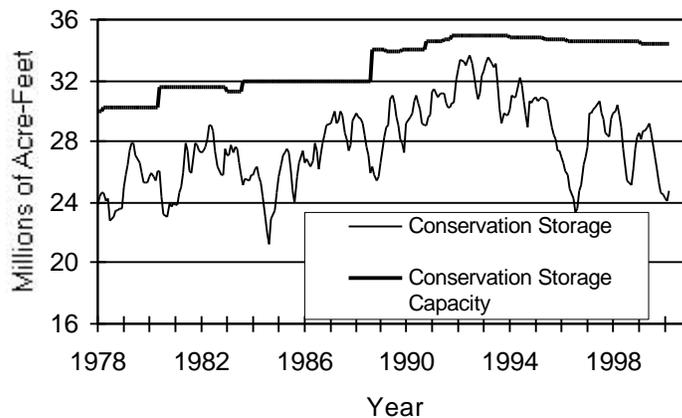
RESERVOIR STORAGE

April 2000

Near the end of April, the 77 reservoirs monitored for this report held 25.5 million acre-feet in conservation storage. This is 74.1 percent of the conservation storage capacity of the State's major reservoirs. Although storage increased by 0.81 million acre-feet (2.4% of conservation storage capacity) during the month, this is still the lowest percentage of total capacity for an April in 23 years of record, and the twenty-third lowest for all months in the record. This is the sixth consecutive month of record low reservoir levels, a string of lows beginning in November 1999. Compared to April 1999, storage decreased 3.17 million acre-feet (-9.2%).

Conservation storage during the month increased in all regions except for the Trans-Pecos (-3.4%), Southern (-3.0%) and South Central (-3.1%) regions. The largest increases occurred in the Upper Coast (+12.3%), and the East (+6.2%) regions. Ten monitored reservoirs held 100 percent of conservation storage near the end of April.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS



Current data are based on elevation near end of month at 77 reservoirs that represent 98 percent of total conservation storage capacity in Texas reservoirs having a capacity of 5,000 acre-feet or more.

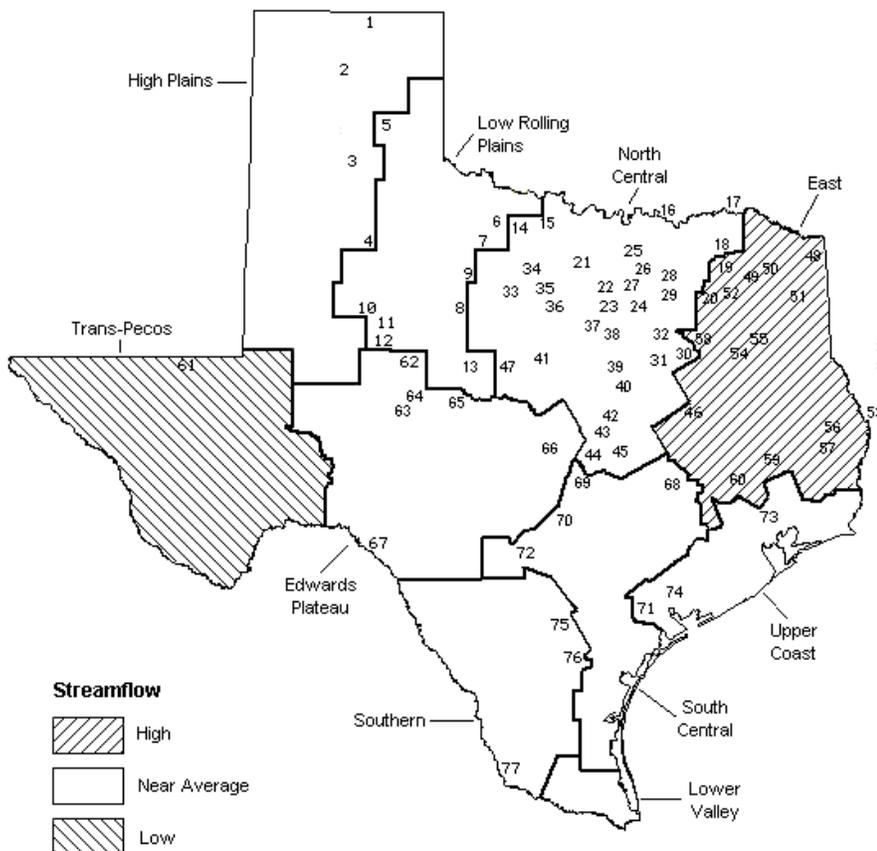
STREAMFLOW

Of 22 reporting index stations in April, computed 30-day mean flows were high (5% - 30% exceedance) at 3 stations, near normal (30% - 70% exceedance) at 14 stations, and low (70% - 95% exceedance) at 5 stations. In comparison to March, flows increased at 9 index stations, decreased at 10 stations, and remained unchanged at 1 station.

Flows in April were below normal in the Trans-Pecos region, above normal in the East region, and normal in the remaining seven reporting regions. Again in April as in March, only the gage on the Elm Creek at Ballinger reported a 30-day average flow of zero during the month.

APRIL STREAMFLOW CONDITIONS

Reservoirs Shown on Map



- | | |
|----------------------------------|-----------------------------|
| 1. Palo Duro Reservoir | 40. Waco Lake |
| 2. Lake Meredith | 41. Proctor Lake |
| 3. MacKenzie Reservoir | 42. Belton Lake |
| 4. White River Lake | 43. Stillhouse Hollow Lake |
| 5. Greenbelt Reservoir | 44. Lake Georgetown |
| 6. Lake Kemp | 45. Granger Lake |
| 7. Miller's Creek Reservoir | 46. Lake Limestone |
| 8. Fort Phantom Hill Reservoir | 47. Lake Brownwood |
| 9. Lake Stamford | 48. Wright Patman Lake |
| 10. Lake J. B. Thomas | 49. Lake Cypress Springs |
| 11. Lake Colorado City | 50. Lake Bob Sandlin |
| 12. Champion Creek Reservoir | 51. Lake O' the Pines |
| 13. Hords Creek Lake | 52. Lake Fork Reservoir |
| 14. Lake Kickapoo | 53. Toledo Bend Reservoir |
| 15. Lake Arrowhead | 54. Lake Palestine |
| 16. Lake Texoma | 55. Lake Tyler |
| 17. Pat Mayse Lake | 56. Sam Rayburn Reservoir |
| 18. Cooper Lake | 57. B. A. Steinhagen Lake |
| 19. Lake Sulphur Springs | 58. Cedar Creek Reservoir |
| 20. Lake Tawakoni | 59. Lake Livingston |
| 21. Bridgeport Reservoir | 60. Lake Conroe |
| 22. Eagle Mountain Reservoir | 61. Red Bluff Reservoir |
| 23. Benbrook Lake | 62. E. V. Spence Reservoir |
| 24. Joe Pool Lake | 63. Twin Buttes Reservoir |
| 25. Ray Roberts Lake | 64. O. C. Fisher Lake |
| 26. Lewisville Lake | 65. O. H. Ivie Reservoir |
| 27. Grapevine Lake | 66. Lake Buchanan |
| 28. Lavon Lake | 67. Intl. Amistad Reservoir |
| 29. Lake Ray Hubbard | 68. Somerville Lake |
| 30. Richland-Chambers Creek Lake | 69. Lake Travis |
| 31. Navarro Mills Lake | 70. Canyon Lake |
| 32. Bardwell Lake | 71. Coletto Creek Reservoir |
| 33. Hubbard Creek Reservoir | 72. Medina Lake |
| 34. Lake Graham | 73. Lake Houston |
| 35. Possum Kingdom Lake | 74. Lake Texana |
| 36. Lake Palo Pinto | 75. Choke Canyon Reservoir |
| 37. Lake Granbury | 76. Lake Corpus Christi |
| 38. Lake Pat Cleburne | 77. Intl. Falcon Reservoir |
| 39. Whitney Lake | |

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation	Conservation		Change since		Change since		
		Storage Capacity (acre-feet)	Storage Late April 2000 (acre-feet)	(%)	Late March 2000 (acre-feet)	(%)	Late April 1999 (acre-feet)	(%)	
HIGH PLAINS									
Palo Duro Reservoir	1	60,900	15,030	25	-920	-2	-5,467	-9	
Lake Meredith (Texas)	2	500,000	401,400	80	1,800	0	60,400	12	
Lake Meredith (Texas and Oklahoma)	(2)	779,560	401,400	51	1,800	0	60,400	8	
MacKenzie Reservoir	3	46,250	9,250	20	-110	0	2,132	5	
White River Lake	4	31,850	15,860	50	-160	-1	5,262	17	
TOTAL		639,000	441,540	69	610	0	62,327	10	
LOW ROLLING PLAINS									
Greenbelt Reservoir	5	58,200	25,800	44	3,310	6	-510	-1	
Lake Kemp	6	319,600	172,100	54	3,300	1	-5,100	-2	
Miller's Creek Reservoir	7	27,890	10,660	38	-140	-1	-4,190	-15	
Fort Phantom Hill Reservoir	8	70,030	22,720	32	-660	-1	-3,399	-5	
Lake Stamford	9	52,700	9,800	19	-720	-1	-7,870	-15	
Lake J. B. Thomas	10	202,300	29,020	14	-2,640	-1	21,740	11	
Lake Colorado City	11	30,800	27,940	91	-1,170	-4	13,020	42	
Champion Creek Reservoir	12	41,600	5,200	13	-80	0	-3,630	-9	
Hords Creek Lake	13	8,600	2,933	34	-65	-1	-1,874	-22	
TOTAL		811,720	306,173	38	1,135	0	8,187	1	
NORTH CENTRAL									
Lake Kickapoo	14	106,000	52,313	49	-468	0	-14,283	-13	
Lake Arrowhead	15	262,100	122,600	47	-2,900	-1	-56,800	-22	
Lake Texoma	16	2,722,300	2,487,057	91	45,548	2	-83,185	-3	
Pat Mayse Lake	17	124,500	118,170	95	528	0	-2,667	-2	
Cooper Lake	18	273,000	272,464	100	8,691	3	34,324	13	
Lake Sulphur Springs	19	17,710	17,710	100	0	0	3,340	19	
Lake Tawakoni	20	936,200	755,400	81	4,200	0	-180,800	-19	
Bridgeport Reservoir	21	374,830	209,689	56	452	0	-91,696	-24	
Eagle Mountain Reservoir	22	178,380	129,091	72	-2,821	-2	-20,002	-11	
Benbrook Lake	23	88,200	79,318	90	5,098	6	-8,882	-10	
Joe Pool Lake	24	175,800	158,955	90	-1,059	-1	-16,845	-10	
Ray Roberts Lake	25	798,760	562,228	70	-7,511	-1	-143,616	-18	
Lewisville Lake	26	555,000	347,550	63	6,361	1	-100,587	-18	
Grapevine Lake	27	187,700	130,376	69	1,058	1	-30,445	-16	
Lavon Lake	28	443,800	344,786	78	12,638	3	-95,863	-22	
Lake Ray Hubbard	29	413,420	413,420	100	0	0	0	0	
Richland-Chambers Creek Lake	30	1,103,820	963,122	87	17,604	2	-140,698	-13	
Navarro Mills Lake	31	55,810	48,926	88	8,934	16	-6,884	-12	
Bardwell Lake	32	53,580	53,580	100	11,385	21	0	0	
Hubbard Creek Reservoir	33	317,800	185,100	58	-5,500	-2	-67,500	-21	
Lake Graham	34	45,000	37,410	83	-810	-2	-7,440	-17	
Poosum Kingdom Lake	35	551,820	471,400	85	10,100	2	177,940	32	
Lake Palo Pinto	36	42,200	26,568	63	-875	-2	-6,369	-15	
Lake Granbury	37	135,680	116,900	86	-2,200	-2	-12,840	-9	
Lake Pat Cleburne	38	25,300	15,305	60	-549	-2	-9,995	-40	
Whitney Lake	39	622,800	428,400	69	-1,200	0	-32,373	-5	
Waco Lake	40	144,500	119,457	83	5,952	4	-25,043	-17	
Proctor Lake	41	55,590	18,899	34	-492	-1	-16,777	-30	
Belton Lake	42	434,500	379,106	87	8,305	2	-55,394	-13	
Stillhouse Hollow Lake	43	226,060	218,908	97	8,673	4	-7,152	-3	
Lake Georgetown	44	37,010	23,114	62	-848	-2	-13,896	-38	
Granger Lake	45	54,280	54,211	100	1,072	2	-69	0	
Lake Limestone	46	215,750	176,300	82	3,400	2	-39,450	-18	
Lake Brownwood	47	143,400	77,200	54	-2,850	-2	-32,200	-22	
TOTAL		11,922,600	9,615,033	81	129,916	1	-1,104,147	-9	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage		Change since Late March 2000		Change since Late April 1999		
			Late April 2000 (acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)	(%)	
EAST									
Wright Patman Lake	48	142,700	142,700	100	0	0	0	0	
Lake Cypress Springs	49	66,800	66,800	100	0	0	0	0	
Lake Bob Sandlin	50	202,300	202,300	100	14,700	7	0	0	
Lake O' the Pines	51	252,000	252,000	100	0	0	0	0	
Lake Fork Reservoir	52	635,200	614,300	97	9,200	1	-20,900	-3	
Toledo Bend Reservoir	53	4,472,900	4,108,000	92	496,000	11	-158,000	-4	
Lake Palestine	54	411,300	395,200	96	19,800	5	-16,100	-4	
Lake Tyler	55	73,700	64,829	88	3,234	4	-8,871	-12	
Sam Rayburn Reservoir	56	2,876,300	2,118,000	74	203,000	7	-758,300	-26	
B. A. Steinhagen Lake	57	94,200	78,114	83	22,533	24	-6,249	-7	
Cedar Creek Reservoir	58	637,050	545,418	86	-2,657	0	-91,632	-14	
Lake Livingston	59	1,750,000	1,735,000	99	-15,000	-1	-12,000	-1	
Lake Conroe	60	429,900	370,700	86	-1,600	0	-41,800	-10	
TOTAL		12,044,350	10,693,361	89	749,210	6	-1,113,852	-9	
TRANS-PECOS									
Red Bluff Reservoir	61	307,000	79,370	26	-10,540	-3	10,610	3	
TOTAL		307,000	79,370	26	-10,540	-3	10,610	3	
EDWARDS PLATEAU									
E. V. Spence Reservoir	62	484,800	101,000	21	2,440	1	33,970	7	
Twin Buttes Reservoir	63	177,800	5,033	3	-578	0	-10,978	-6	
O.C. Fisher Lake	64	119,200	13,436	11	-1,244	-1	1,959	2	
O. H. Ivie Reservoir	65	554,340	291,700	53	-9,700	-2	-113,800	-21	
Lake Buchanan	66	896,980	607,603	68	185	0	-251,000	-28	
Amistad Reservoir (Texas)	67	1,771,030	1,098,000	62	50,000	3	86,000	5	
Amistad Reservoir (Texas and Mexico)	(67)	3,151,300	1,369,000	43	-49,000	-2	111,000	4	
TOTAL		4,004,150	2,116,772	53	41,103	1	-253,849	-6	
SOUTH CENTRAL									
Somerville Lake	68	155,060	120,656	78	1,546	1	-34,404	-22	
Lake Travis	69	1,144,100	768,333	67	-49,714	-4	-362,470	-32	
Canyon Lake	70	385,600	352,124	91	-2,912	-1	-33,476	-9	
Coletto Creek Reservoir	71	35,060	27,840	79	-150	0	-3,760	-11	
Medina Lake	72	254,000	168,600	66	-10,700	-4	-74,835	-29	
TOTAL		1,973,820	1,437,553	73	-61,930	-3	-508,945	-26	
UPPER COAST									
Lake Houston	73	128,860	128,860	100	17,460	14	0	0	
Lake Texana	74	157,900	136,300	86	17,800	11	-21,600	-14	
TOTAL		286,760	265,160	92	35,260	12	-21,600	-8	

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

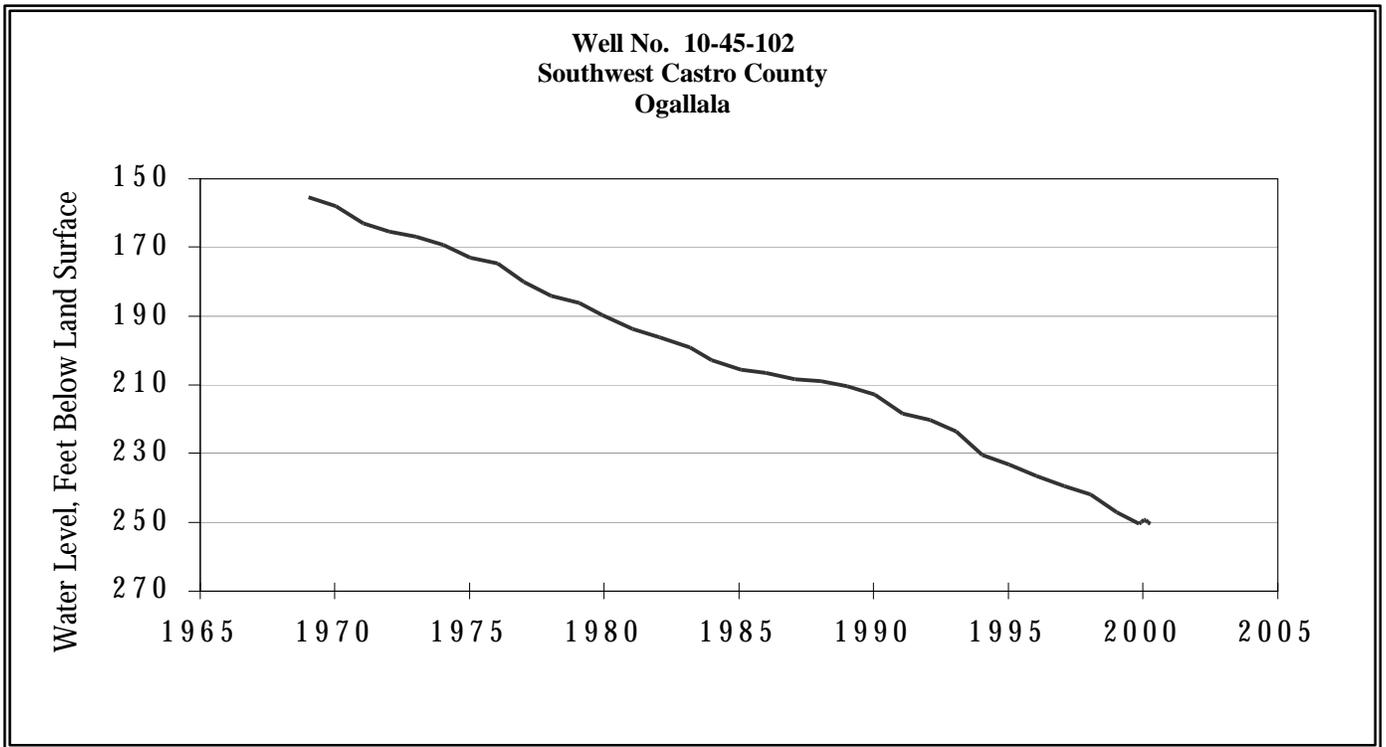
Name of Lake or Reservoir	No. on Map	Conservation Storage Capacity (acre-feet)	Conservation Storage Late April 2000 (acre-feet) (%)	Change since Late March 2000 (acre-feet) (%)	Change since Late April 1999 (acre-feet) (%)
SOUTHERN					
Choke Canyon Reservoir	75	695,260	277,000 40	-6,000 -1	-79,958 -12
Lake Corpus Christi	76	241,240	131,000 54	-14,800 -6	-52,141 -22
Falcon Reservoir (Texas)	77	1,555,120	185,000 12	-53,000 -3	-113,000 -7
Falcon Reservoir (Texas and Mexico)	(77)	2,653,290	313,000 12	-233,000 -9	-237,000 -9
TOTAL		2,491,620	593,000 24	-73,800 -3	-245,099 -10
 STATE TOTAL		 34,481,020	 25,547,962 74	 810,964 2	 -3,166,368 -9

Note:

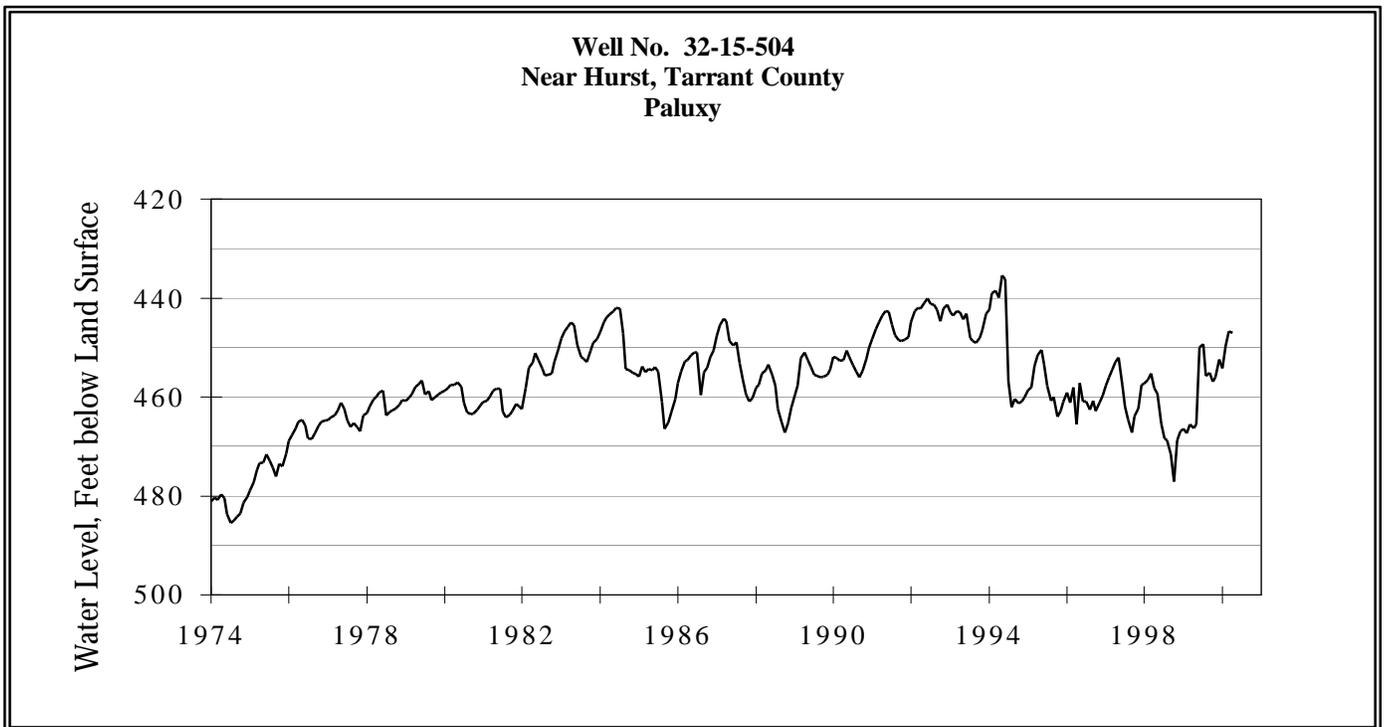
Conservation storage capacity is the space available to store water above the level of invert of lowest outlet works and below the level of top of conservation pool or normal maximum operating level. Conservation storage refers to the volume of water held within the conservation storage space. Not included is any water in flood control storage (above the top of conservation pool or normal maximum operating level), or any water in so called dead storage (in the bottom of the reservoir, below the invert of lowest outlet works and consequently not removable by gravity flow alone.) Percentage of conservation storage is based on the conservation storage capacity of the reservoir and the conservation storage in the reservoir for date shown. Percent change is given by % Change = 100 * (current conservation storage - past conservation storage)/conservation storage capacity.

Current data are based on elevations near end of month at 77 reservoirs that together represent 98 percent of the total conservation storage capacity of major Texas reservoirs (those with capacity of 5,000 acre-feet or more each). Figures in parentheses for Lake Meredith represent the total conservation storage excluding 58,014 acre-feet of dead storage and are not included in State total. Preliminary figures are shown for the United States' share of conservation storage in International Amistad and International Falcon Reservoirs; the estimates may be subject to revision on completion of international water accounting. Texas (United States' share) and Mexico and are not included in State total.

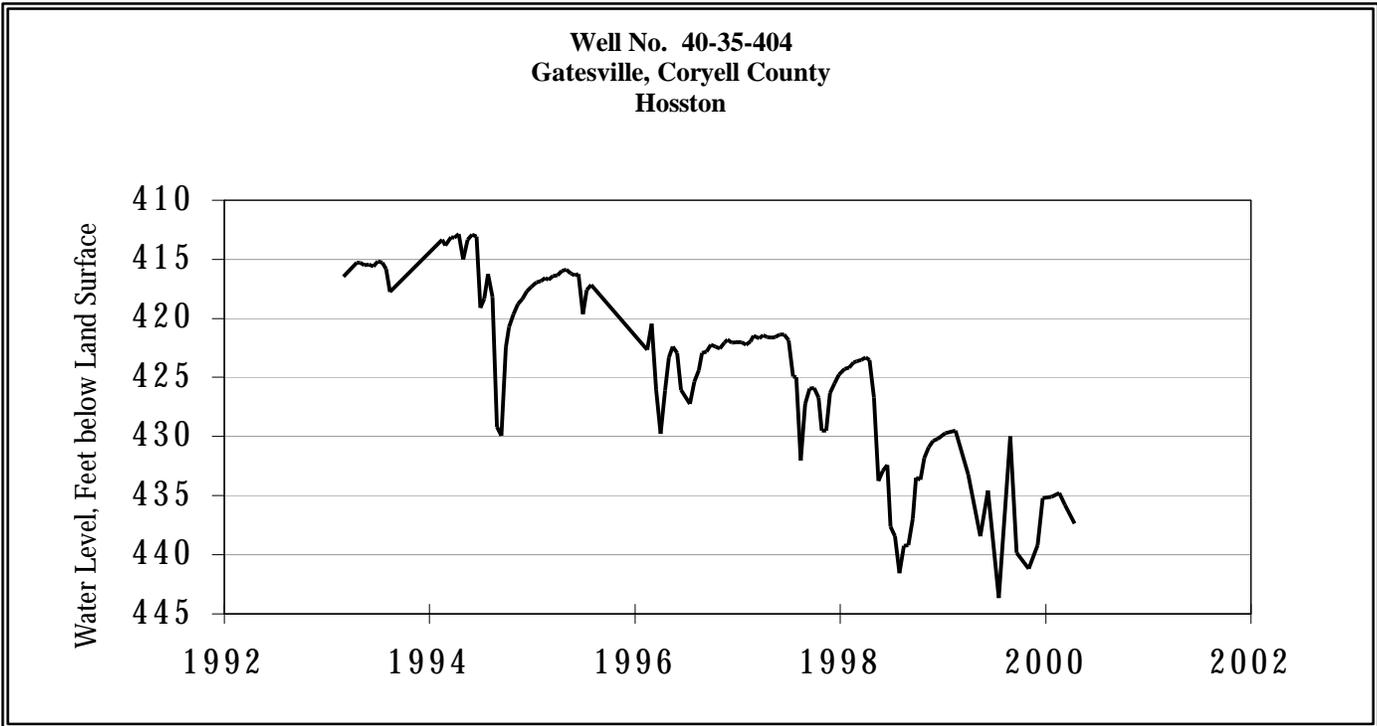
APRIL GROUND WATER LEVELS IN OBSERVATION WELLS



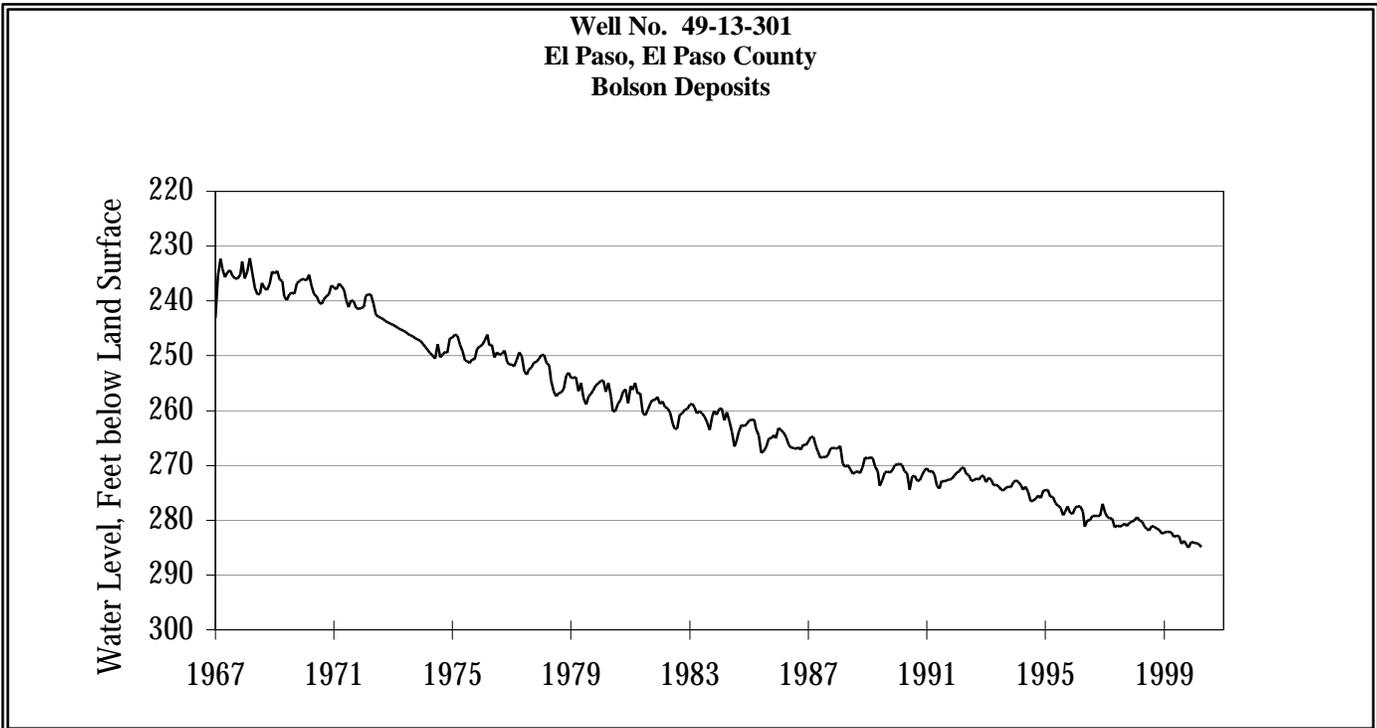
The April water-level measurement in this Ogallala aquifer well, elevation 3,816 feet above sea level, was 250.58 feet below land surface. This measurement was 0.41 feet below last month's measurement and 94.58 feet below the initial measurement recorded in 1968.



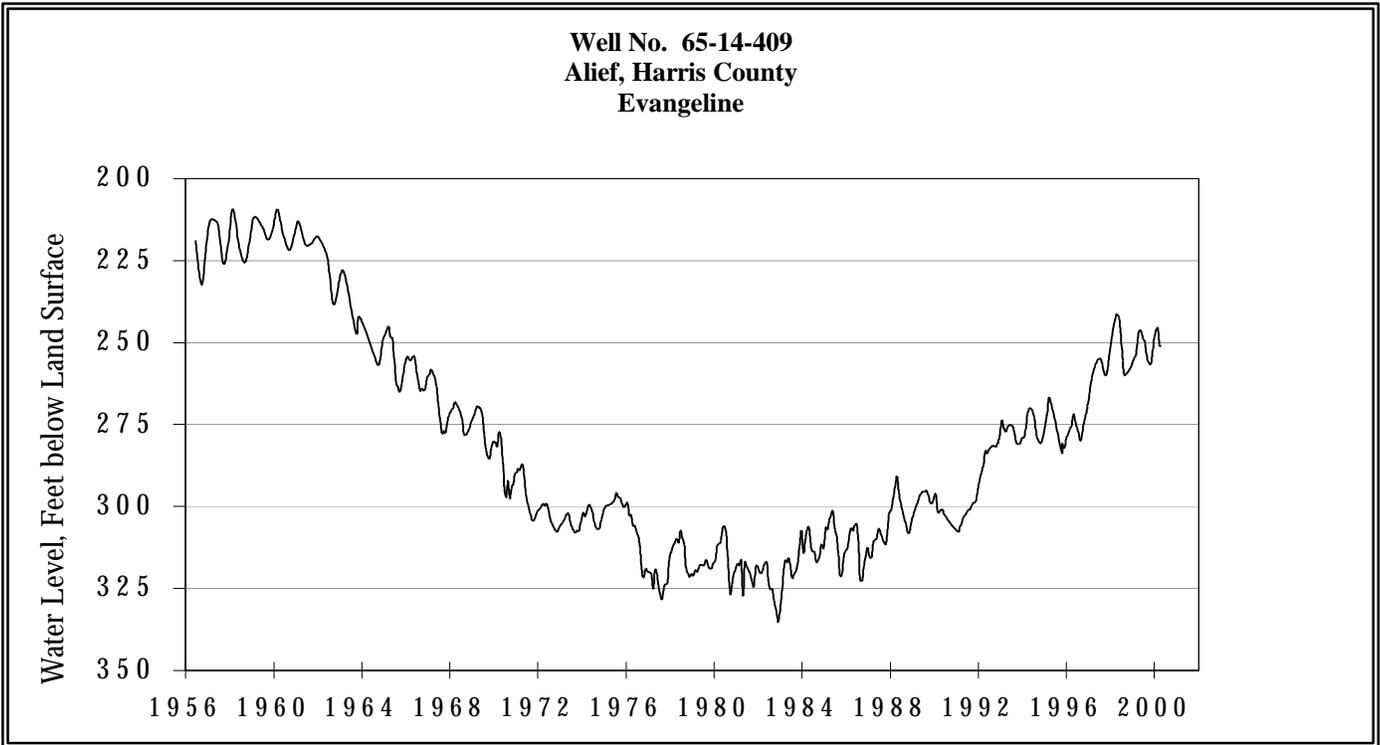
The April water-level measurement in this Paluxy Formation Trinity aquifer well, elevation 535 feet above sea level, was 447.05 feet below land surface. This measurement was 0.30 feet below last month's measurement, 19.25 feet above last year's measurement, and 53.66 feet below the initial measurement recorded in 1953.



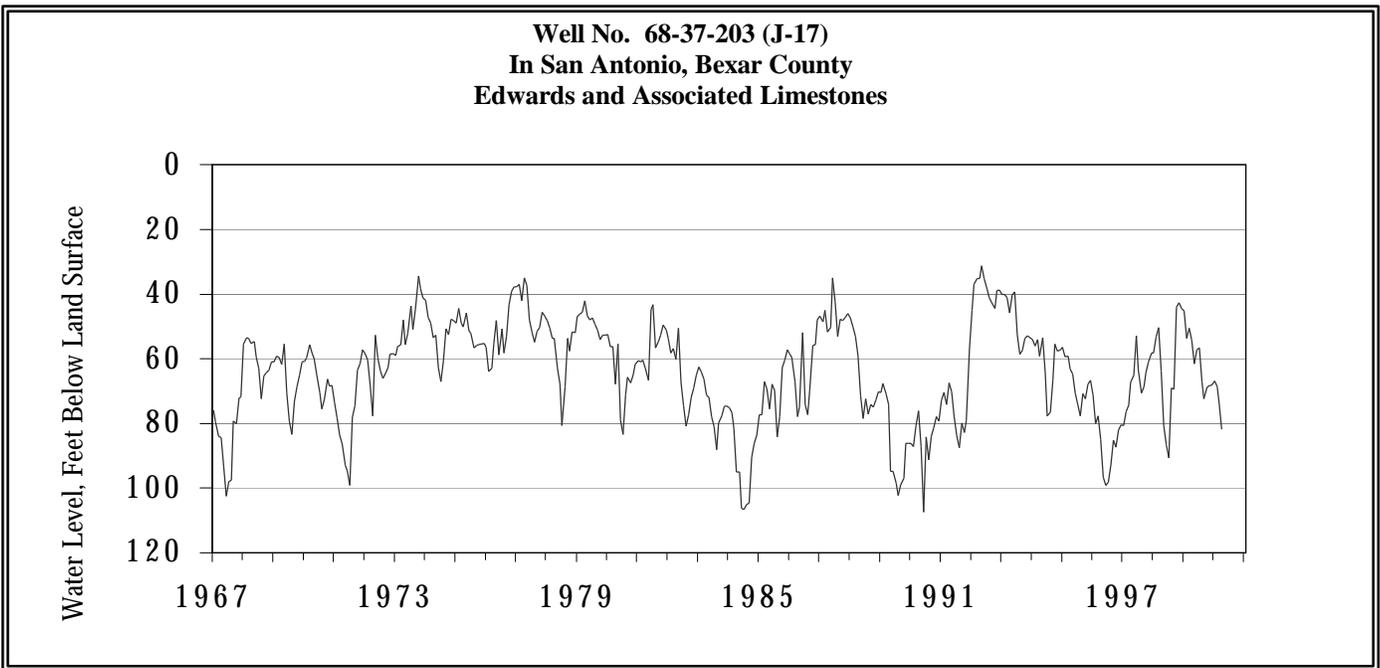
The April water-level measurement in this Hosston Formation Trinity aquifer well, elevation 823 feet above sea level, was 437.39 feet below land surface. This measurement was 1.56 feet below last month's measurement, 4.45 feet below last year's measurement, and 145.39 feet below the initial measurement recorded in 1955.



The April water-level measurement in this Hueco Bolson aquifer well, elevation 3,882 feet above sea level, was 284.84 feet below land surface. This was 0.57 feet below last month's measurement, 2.62 feet below last year's measurement, and 52.94 feet below the initial measurement recorded in 1964.

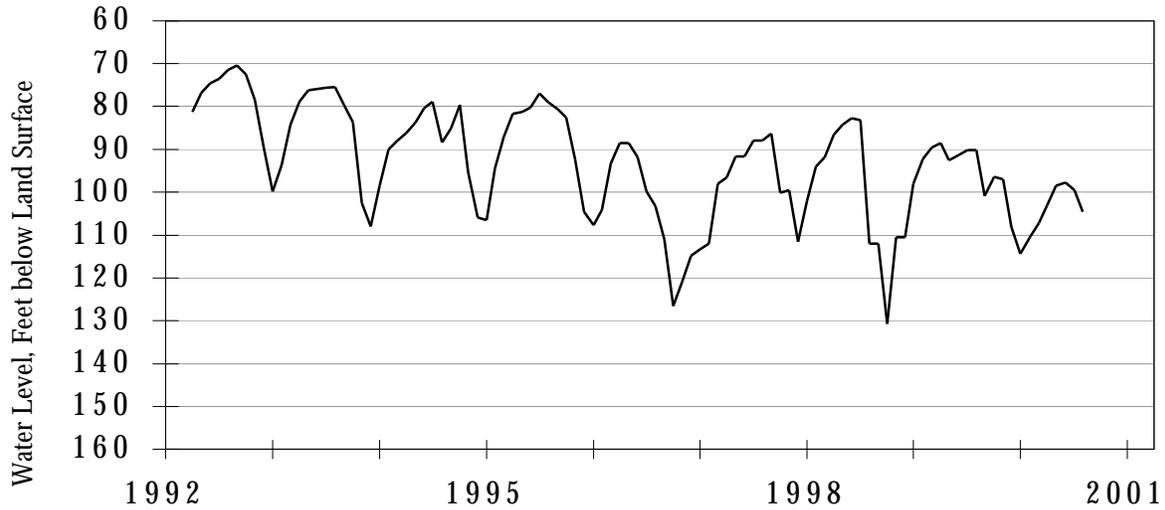


The April water-level measurement in this Evangeline Formation Gulf Coast aquifer well, elevation 66 feet above sea level, was 251.09 feet below land surface. This was 0.31 feet below last month's measurement, 3.78 feet below last year's measurement, and 147.86 feet below the initial measurement recorded in 1947.



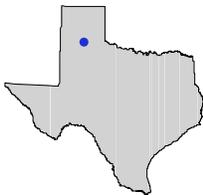
The April water-level measurement in this Edwards (BFZ) aquifer well, elevation 731 feet above sea level, was 81.77 feet below land surface. This was 7.95 feet below last month's measurement, 27.57 feet below last year's measurement, and 22.15 feet below the initial measurement recorded in 1962.

**Well No. 68-60-912
Between Poteet and Pleasanton, Atascosa County
Carrizo**



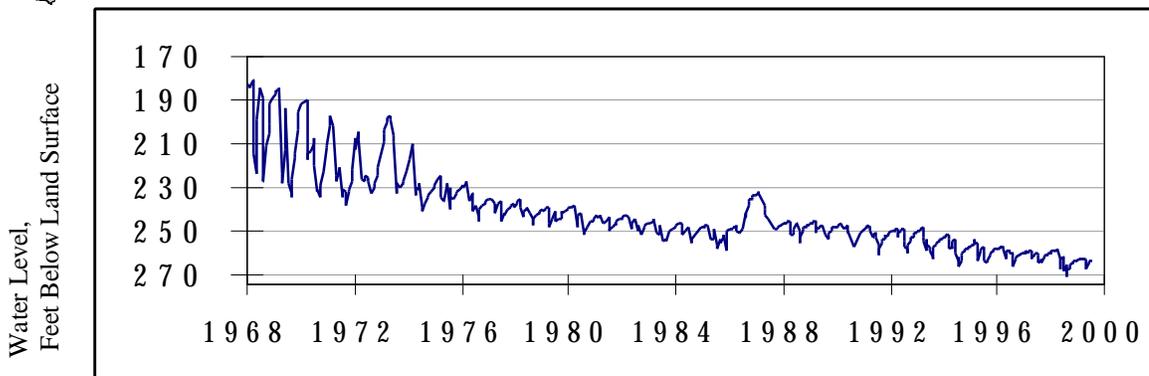
The April water-level measurement in this Carrizo aquifer well, elevation 446 feet above sea level, was 104.49 feet below land surface. This measurement was 5.02 feet below last month's measurement of 99.47 feet below land surface, 14.37 feet below last year's measurement, and 23.24 feet below the initial measurement recorded in 1965.

HYDROGRAPH OF THE MONTH



Each month this space features a new hydrograph (marked with the • symbol on the map) depicting different aquifers and different conditions in Texas.

**Well No. 11-61-407
West Central Floyd County**



This 293-foot-deep recorder well, located northwest of the City of Floydada, has an elevation of 3247 feet above sea level and is completed in the Ogallala aquifer. The graph illustrates both the seasonal cyclic water-level changes in response to irrigation demands and the general steady decline of the aquifer's water level.